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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,267	06/30/2004	Shih-Ming Cheng	13435-US-PA	4266
31561 7590 01/30/2007 JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE 7 FLOOR-1, NO. 100 ROOSEVELT ROAD, SECTION 2 TAIPEI, 100 TAIWAN			EXAMINER TRUONG, BAO Q	
			ART UNIT 2875	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/710,267	CHENG, SHIH-MING	
	Examiner	Art Unit	
	Bao Q. Truong	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/4/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by the applicant's admitted prior art, FIG. 1.

Regarding claim 1, FIG.1 discloses a method of fabricating a light guide plate [110] having steps of providing a thin film [110] having a transfer material layer [112] thereon, providing a molding machine [molds for forming the light guide plate 110], disposing the thin film [110] inside the molding machine such that at least a portion of the transfer material layer [112] being located within the cavity [after performing an injection molding, pattern 112 is formed on the bottom surface of the light guide plate 110], forming a light guide plate body [110] inside the cavity such that the transfer material layer [112] is transferred on the light guide plate body [110] (FIG. 1, specification paragraph [0007] - [0008]).

Regarding claim 2, FIG. 1 discloses the transfer material layer [112] having a light scattering pattern layer (FIG. 1, specification paragraph [0008]).

Regarding claim 3, FIG. 1 discloses a light reflecting layer [130] and a light scattering pattern layer [112] over the light reflecting layer [130] (FIG. 1, specification paragraph [0009] – [0010]).

Regarding claim 4, FIG. 1 discloses a light plate body [110] with a light output surface [S3], a bottom surface [S2], a light incident surface [S1], and a plurality of side surfaces [at side 130 and cross section view], wherein the light incident surface and the side surface are adjacent to and positioned between the bottom surface and the light output surface, and the light scattering pattern [112] and the light reflecting layer [130] are transferred on the bottom surface (FIG. 1, specification paragraph [0007]).

Regarding claim 5, FIG. 1 discloses the reflecting layer [130] being further transfer on the side surface (FIG. 1).

4. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Wortman et al. [US 6,447,135 B1].

Regarding claim 8, Wortman et al. discloses a light guide plate [74] having a light guide body with a light output surface [72], a bottom surface [at layer 73], a light incident surface [66], a plurality of side surfaces [at 74 and cross section view], wherein the light incident surface and the side surfaces are adjacent to and positioned between the bottom surface and the light output surface, and a transfer material layer [71, 73, 76] disposed on the bottom surface [at layer 73], wherein a light scattering patterned layer

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[71] disposed on the bottom surface [at 73] and a light reflecting layer [76] disposed over the bottom surface and covering the light scattering pattern layer [71], wherein the light guide plate [74] and the transfer material layer [71, 73, 76] together being formed into a unity and there is substantially no gap between the transfer material layer and the light guide plate body (figure 8, column 5 lines 45-60).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Ayres [US 5,947,578].

Regarding claim 6, FIG. 1 discloses the step of disposing the thin film [110] inside the molding machine with at least a portion of the transfer material layer [112] being disposed inside the cavity [see paragraph [0008] in specification]. However, FIG. 1 does not show the step of applying the tape-spooling mechanism to reel the thin film over the molding machine.

Ayres discloses a method of making a light guide plate [waveguide] having the step of applying the tape-spooling mechanism [see figures 7, 8 and 9] to reel the thin film [14, 28, 62] over the molding machine [52, 54, 56] (figures 7-9).

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It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the tape-spooling mechanism to reel the thin film over the molding machine for the method of FIG. 1 (applicant's admitted prior art) as taught by Ayres to speedily feed the thin film into the molding machine for purpose of providing an advantageous way of increasing productivity while reducing manufacturing costs.

Regarding claim 7, Ayres discloses the transfer material layer [14, 28, 62] having a plurality of patterned blocks [64] so that at least one of the patterned block [64] aligns with the cavity after reeling the thin film forward a fixed distance (figures 7 – 9).

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wortman et al. in view of Wimberger-Friedl [US 5,845,035].

Regarding claim 12, Wortman et al. discloses a light guide with side surfaces [at 74] but does not clearly disclose the light reflecting layer being disposed on the side surfaces.

Wimberger-Friedl discloses a light guide [19] with a side surface [15] having a light reflecting layer [23] to prevent light exit at the side face [15] (figure 1, column 6 lines 40-52).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the side surface of the light guide of Wortman et al. with the light reflecting layer as taught by Wimberger-Friedl to prevent light leaving the light

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guide at the side surface for purpose of providing an advantageous way of increasing brightness.

Response to Arguments

8. Applicant's arguments with respect to present claims have been considered but are moot in view of the new ground(s) of rejection, the applicant's admitted prior art of FIG. 1.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Q. Truong whose telephone number is (571) 272-2383. The examiner can normally be reached on Monday-Friday (8:00 AM - 4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Bao Q. Truong", with a horizontal line extending from the end of the signature.

Bao Q. Truong
Examiner
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